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14. ABSTRACT Identifying and striking critical enemy nodes is not a new warfare concept, but current technology has brought targeting to the forefront of nearly all recent military operations. The identification and subsequent striking of high value targets is now termed Time Sensitive Targeting (TST). The emergence of another concept, Network Centric Warfare (NCW) has clear implications, both positive and negative, on the success of this mission. With ever-increasing focus on information superiority and sharing, the real time identification, location, and striking of targets has become a reality. The inherent dangers of NCW are also clearly present in TST. With the current wealth of information available to Operational Commanders, NCW has the potential to lead to micromanagement at the tactical level of war. Clearly defining the role of the Operational Commander and his functions in TST can minimize the potential danger of micromanagement and avoid the pitfalls of NCW while contributing to the success of the mission. In this paper, the draft <i>Multi-Service Procedures for Targeting Time Sensitive Targets</i> as well as Operations Allied Force, Enduring Freedom, and Iraqi Freedom are examined to provide lessons learned and support for defining the Operational Commander’s role in TST.					
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TIME SENSITIVE TARGETING – THE OPERATIONAL COMMANDER’S ROLE

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract of

TIME SENSITIVE TARGETING – THE OPERATIONAL COMMANDER’S ROLE

Identifying and striking critical enemy nodes is not a new warfare concept, but current technology has brought targeting to the forefront of nearly all recent military operations. The identification and subsequent striking of high value targets is now termed Time Sensitive Targeting (TST). The emergence of another concept, Network Centric Warfare (NCW) has clear implications, both positive and negative, on the success of this mission. With ever-increasing focus on information superiority and sharing, the real time identification, location, and striking of targets has become a reality. The inherent dangers of NCW are also clearly present in TST. With the current wealth of information available to Operational Commanders, NCW has the potential to lead to micromanagement at the tactical level of war.

Clearly defining the role of the Operational Commander and his functions in TST can minimize the potential danger of micromanagement and avoid the pitfalls of NCW while contributing to the success of the mission. In this paper, the draft *Multi-Service Procedures for Targeting Time Sensitive Targets* as well as Operations Allied Force, Enduring Freedom, and Iraqi Freedom are examined to provide lessons learned and support for defining the Operational Commander’s role in TST.

Introduction

Since the Industrial Revolution, warfare has become ever dependent on and shaped by emerging technology. Identifying and striking critical enemy nodes is not a new warfare concept, but current technology has brought targeting to the forefront of nearly all recent military operations. The identification and subsequent striking of high value targets is now termed Time Sensitive Targeting (TST). The emergence of another concept, Network Centric Warfare (NCW) has clear implications, both positive and negative, on the success of this mission. With ever-increasing focus on information superiority and sharing, the real time identification, location, and striking of targets has become a reality.

The inherent dangers of NCW are also clearly present in TST. With the current wealth of information available to Operational Commanders, NCW has the potential to lead to micromanagement at the tactical level of war. However, micromanagement of target selection is not a relatively new danger. In *Waging Modern War*, General Wesley Clark writes of his personal experience during the Vietnam War, when President Lyndon B. Johnson and his staff selected and rejected a large number of politically sensitive targets. Although he acknowledges the lasting and profoundly negative impact this experience had on him, the reader is painted a very familiar picture in his account of Operation Allied Force during which very similar mistakes were made.¹

Clearly defining the role of the Operational Commander and his functions in TST can minimize the potential danger of micromanagement and avoid the pitfalls of NCW while contributing to the success of the mission. The Operational Commander is responsible for the identification and prioritization of TSTs based on component level inputs, establishing the Rules of Engagement (ROE) governing the targeting of TSTs, and structuring the

Command and Control (C2) operations.² His goal should be to delegate TST prosecution to the lowest possible level, thus expediting the process and resisting the urge to control tactical operations.

With proponents of NCW insisting that their concept will flatten and further decentralize the command structure, why are there so many instances of Operational Commanders directly controlling tactical operations? In this paper, the draft *Multi-Service Procedures for Targeting Time Sensitive Targets* as well as Operations Allied Force, Enduring Freedom, and Iraqi Freedom are examined to provide lessons learned and support for defining the Operational Commander's role in TST.

Time Sensitive Targeting Defined

A Time Sensitive Target is defined in *Joint Publication (JP) 3-60, Joint Doctrine for Targeting*, as “a target of such high priority to friendly forces that the Joint Forces Commander (JFC), or Combined Forces Commander (CFC) designates it as requiring immediate response because it poses (or will soon pose) a danger to friendly forces, or it is a highly lucrative, fleeting target of opportunity.” Examples of TSTs that could pose such a significant threat are mobile long-range surface-to-air missile (SAM) systems, theater ballistic missiles (TBMs) and weapons of mass destruction (WMDs).³ The commonalities of these targets are high value and a limited vulnerability window based on their mobility, their current or future location, or even other factors beyond our control such as weather. The first essential step then is the gathering of intelligence for these targets and then disseminating that intelligence. NCW can play a significant role during this process and in the actual execution of the mission. Along with potential benefits, NCW can also create some pitfalls, particularly during the execution phase.

Network Centric Warfare Pitfalls

NCW is described as an increase in combat power through information superiority. It is centered on the networking or linking of sensors, decision makers, and shooters to provide or achieve shared awareness and a common and more complete picture of the battle space.⁴ With the success of TST relying solely on the Joint Task Force's ability to act within the enemy decision cycle, NCW can play a significant role in the acquisition and timely dissemination of vital intelligence to the Operational Commander as well as to the shooter. NCW proponents have clearly highlighted this as a benefit and objective of NCW. Likewise, critics have also identified this flow of information as an extremely effective targeting tool, but have brought to light many of the pitfalls of NCW; pitfalls that could and have negatively affected the achievement of objectives.

Admiral Cebrowski, considered the father of NCW, has stated, "NCW is a tool, a means to empower strategies to accomplish objectives, or ends."⁵ Critics argue that NCW is merely a targeting tool, and should not be focused on the achievement of objectives.⁶ However, what if the objective, perhaps even a strategic objective, is in fact a target? The answer lies between the critics' views of NCW and Admiral Cebrowski's. Objectives are achieved by the application of sound operational art. NCW should not be considered a method of warfare, nor should it be focused on the achievement of objectives. It is merely an enabler and, in TST it can play a significant role.

The shared or enhanced awareness achieved through NCW could also be a potential pitfall. The increase in shared information and awareness can lead Operational Commanders to becoming increasingly involved in purely tactical decisions, instead of focusing on the achievement of operational and strategic objectives. This distraction runs counter to the very

existence of the command structure and their supporting staffs. The goal should be to provide the required information to each level for the accomplishment of their objectives within their respective areas of responsibility.⁷

Another critic of NCW, Charles Perrow, cites micromanagement as the greatest danger of shared awareness.⁸ He notes that the benefit of a bureaucracy is that it works against the idea of shared awareness and precludes micromanagement; the key problem with NCW is that leaders have the ability to intervene, when it is the people at the bottom that best understand the situation. The U.S. military's doctrine of centralized planning and decentralized execution is designed to avoid such mistakes by delegating execution authority to the lowest possible level where those in closest contact with the enemy can call the shots. A significant benefit of the resulting decision cycle is speed, an absolute requirement in TST.

Perrow further notes that bureaucracy also acts as a filter to potential information overload to the upper echelons.⁹ In war, this information overload could have disastrous consequences. General John Jumper, Commanding General, U.S. Air Forces, Europe during OAF said that the Combined Air Operations Center (CAOC) was "...filled with more than sixty separate displays, each with different information. That presented an incoherent view of the battle space."¹⁰

Operation Allied Force

The 78-day air operation of Operation Allied Force would be the first major combat operation to test new NCW capabilities. Coupled with the fact that the main thrust of military action was that of targeting, it offers some significant lessons for future execution of TST. Critics are quick to point out the negative aspects of the operation, in particular the incredible micromanagement from the highest levels and the misuse of NCW. This may not

be the entire story though, and there are examples of NCW positively influencing the execution of TST. It is also inappropriate to simply blame NCW for the misuse of military power in OAF. Poorly defined objectives, complex ROE, and political and diplomatic restraints, coupled with poor leadership all contributed to the negative lessons of OAF.

There were four key factors in OAF that had a significant impact on the success of targeting. The first was the American and NATO target approval process.¹¹ In actuality, these amounted to two separate, extremely slow and tedious processes. The first approval was required to come directly from the White House and only after a complete analysis of each individual target, including location, military impact, possible personnel casualties and/or collateral damage, as well as risks associated with weapon failure or aircrew error. The process for the remaining 18 NATO countries was less involved with most only requiring a generic target type description.¹² Regardless, the entire process was obviously beyond application in the TST mission, with speed of decision making a key element to successful engagement. General Michael Short commented that the 19 country approval process was “counterproductive” and concluded that “before you drop the first bomb or fire the first shot, we need to lock the political leaders up in a room and have them decide what the rules of engagement will be so they can provide the military with the proper guidance and latitude needed to prosecute the war.”¹³

There are clear examples that the targeting process negatively influenced the operation. Even with many air defense targets remaining from the initial phase, NATO was anxious to move on to subsequent targets consisting of forces and support facilities in southern Serbia. The target approval process would take hold again and give Serbians time to disperse their forces.¹⁴ The target-by-target approval process affected the tactical level as

well, with many aircraft turned around in flight or specific targets deleted following last minute disapproval.¹⁵ The approval process also depended on fixed target locations, so many targets were not hit if it was discovered that they had moved.¹⁶ With successful execution of TST relying on a time compressed targeting cycle, the target approval process used in OAF was completely incompatible with this mission.

The second factor influencing targeting were ROE that frequently required aircrew to obtain CAOC permission to strike targets of opportunity that they had located and positively identified.¹⁷ Political leaders and NATO were concerned with not only the potential strategic importance of targets but also collateral damage; in fact, British law required that any target being struck by a United Kingdom based aircraft had to be first approved by their lawyers.¹⁸ A subset of the target approval process, these ROE were also incompatible with TST.

Another example of ROE negatively affecting the targeting process was evident in the use of Predator live video feed in OAF to approve or deny strikes. During one mission, Predator feed displayed a Serb Armored Personnel Carrier (APC) parked near a civilian farm tractor. A strike request against the APC was subsequently denied by the CAOC because of potential collateral damage to the tractor.¹⁹ Although the use of NCW in this case was not inappropriate as it prevented an ROE violation, it was rather the restrictive nature of the ROE itself that prevented the execution of TST. There were also many other complaints from pilots that requirement for CAOC approval allowed many mobile threats to escape. The restrictive ROE and the over reliance on communications and sensor information available to the CAOC hampered tactical execution and can be partially blamed for the lengthy duration of the operation.

The third factor is linked to both the target approval process and the ROE in place. The restrictive measures mentioned above led to a poorly structured Command and Control organization. The requirement for CAOC approval and the vast amount of information available to the CAOC Directors led to a centralized command and centralized execution structure. This micro-managerial system is also incompatible with TST.

The last factor offers a positive aspect to the development of TST procedures and highlights an effective use of NCW. The majority of TST targets in OAF were mobile military vehicles and surface-to-air missile (SAM) batteries, and the destruction of these targets represented a major element of the operation. Locating, tracking, and then providing timely targeting information to strike assets, was critical to successful engagement. The CAOC demonstrated that, although hampered by the target approval process and ROE, execution of TST could not only be accomplished, but could be highly successful. An example is the CAOC's notification of new targets to the B-2's either launching from Whiteman AFB, MO or already enroute. This ability to retarget airborne strike assets is critical to TST and in this case the CAOC had used "reach forward" to assist mission accomplishment rather than hinder it.²⁰ Although OAF had demonstrated some potential for effective TST, the overall application of military power should be viewed as a failure with many of the criticisms of NCW and micromanagement being clearly highlighted during the operation.

Operation Enduring Freedom

There is very little argument that the use of air power in Afghanistan was a primary factor in the elimination of the Taliban, but the application was dramatically different from that seen in OAF. Unlike OAF, there were very few fixed targets in Afghanistan and the

greatest contribution of air power would come through the execution of dynamic targeting with nearly 80 percent of the targets struck from the air being passed to aircrews en route.²¹ Additionally, OEF confirmed the hypothesis that air power is most effective when used in conjunction with ground force elements.²² OEF also marks the definitive establishment of TST as a viable and vital mission, with many of the targets being classified as high value and possessing a fleeting engagement vulnerability window. Similar to OAF, OEF highlighted the need for TST doctrine. Many of the same obstacles, primarily in the form of poor leadership and potentially stemming from the pitfalls of NCW, would be present.

As in OAF, the target approval process would impede successful TST execution on many occasions. In the aftermath of OEF, particularly in the press, there were many stories about who granted target approval, with many claiming that General Tommy R. Franks, Commander U.S. Central Command or his superiors personally authorized or denied target engagement.²³ Lawyers were also involved in the process, well beyond the planning phase and into the execution phase. Professor Milan Vego, of the Naval War College, described the process as “...unnecessarily complicated, [and] cumbersome,” and adds “target selection and approval is becoming increasingly complex and time-consuming.”²⁴ Although this target approval process is seemingly incompatible with TST, there are situations when the highest approval must be obtained prior to target engagement. The goal of the Operational Commander should be to adhere to strict limits when developing this particular list of targets, listing only those with strategic or operational implications or high risk based on excessive collateral damage, personnel or equipment loss, or conflict escalation. Most critical analyses of OAF lead to the conclusion that poor leadership through micromanagement dominated the target approval process.

The target selection process in OEF was the byproduct of an overly centralized Command and Control structure. With the amount of information available to the higher echelon commanders, “reach forward” into tactical actions occurred. The negative impact on tactical operations was highlighted in a *Washington Post* article that criticized the OEF command structure. It cited that delays in air strikes were a major concern, with some delays of as much as four hours, and seemingly stemming from the complicated target approval process, again a byproduct of a poorly established Command and Control structure.²⁵ Professor Vego points to technological advances in communications and information sharing, tenets of NCW, as primary factors in over centralization of command and control.²⁶

Regardless of the factors that created such a cumbersome Command and Control structure, the outcome was an increase in the length of time required to achieve the objectives and the potential that many Taliban and al Qaeda targets may have escaped. According to Seymour M. Hersh, reporting in *The New Yorker*, a demonstration of the need for TST doctrine came early in the operation. A Hellfire equipped Predator had reportedly located a convoy near Kabul which was believed to have been carrying Mullah Omar, the Taliban leader. The decision to engage the convoy was referred to CENTCOM and permission was subsequently denied primarily on the advice of the Judge Advocate General. Hersh also reports that the convoy escaped and alleges that it would later be confirmed that Omar was with it.²⁷

There are, however, positive aspects of NCW and TST seen in OEF. A key to the success in Afghanistan was the ability of Special Operations Forces to locate, identify, and communicate target information to strike platforms. Without the advances made in NCW and TST, the striking of these targets would have been impossible. An example of the

capability of TST came when Northern Alliance forces, operating from horseback, discovered a Taliban military outpost and relayed that information back to the CAOC. The CAOC alerted an airborne B-52 and because the target lay within a previously established kill zone, a strike was initiated and the target taken out only 19 minutes after the initial notification.²⁸ This is an excellent example of how TST should be accomplished. The target was of high value (determined during the planning phase), ROE were in place that permitted the attack, the Command and Control structure was established that allowed for a timely decentralized execution decision, and lastly a well-established net of communications had facilitated the strike. The key element in the success of this particular mission was ROE that permitted the strike without the requirement for a higher echelon commander's approval. Overall, OEF definitively established the attributes of TST but further highlighted the need for doctrine.

Operation Iraqi Freedom

The after action reports of OIF have listed 156 TST targets engaged and that these fell within three broad categories: terrorist, leadership and weapons of mass destruction. In addition, 686 targets were labeled dynamic targets, or targets that did not necessarily meet the high value aspect of TST but were either mobile or held an importance less than strategic.²⁹ The success of TST and the engagement of dynamic targets were due not only to technological advances but to the integration of lessons learned from OAF and OEF. Near real time infusion of intelligence coupled with permissive ROE and an effective Command and Control structure, allowed the CAOC to prosecute targets with unprecedented speed and lethality. An example is the 7 April 2003, B-1B strike on a suspected leadership meeting site

that took merely 45 minutes from identification to bombs on target and is presumed to have missed Saddam Hussein by minutes.³⁰

With regards to technological advances, OIF saw the largest percentage of precision or guided weapons employed in any major combat operation at 68%, and unparalleled information sharing occurred through a complex integration of sensor and communications systems.³¹ Precision weapons demonstrated their great value not only in attacking an enemy's leadership and command and control nodes, but also in close air support, particularly in areas with a high potential for collateral damage.³² Proponents of NCW are quick to point out the attributes of a well-netted combat force and its ability to strike quickly and precisely. However, critics draw attention to the dangers of an increasing reliance on the speed of information flow, citing that the more forces rely on information, the more vulnerable they become when that information is denied, lost, or intentionally altered.³³

Critics and proponents aside, the military victory achieved during the major combat operations in Iraq can be partially attributed to the effectiveness of TST and its subset, dynamic targeting. Of the key elements of TST, only one deserves negative comment. The identification and prioritization of targets in Iraq was accomplished well in advance of the operation and also allowed for refinement as objectives or the situation changed. However, throughout the conflict, the classification of TST qualified targets relaxed and the potential for the misuse of strike assets existed. Prior to the commencement of operations, CENTCOM specifically identified TST targets as those related to terrorist activities, key leadership, WMD, and the additional category of air defense assets (ADA). The lack of specificity in this last category allowed controllers in the CAOC to assign targets under the umbrella of TST when in fact they may not have met the criteria of high value or of posing a

significant threat to coalition forces. Certainly, there is subjectivity in establishing value or threat potential and this is when a well-established priority can make the difference.

Although, these targets were still viable and may have very well been dynamic because of their mobility or late discovery, the potential to wrongly appropriate strike assets to these targets did exist.⁺ When designating TST targets and appropriating strike assets, members of the CAOC TST Cell or tactical controllers need to weigh in additional factors such as the location of the target, its potential to pose a significant threat during future maneuvers and the principle of economy of force. In most situations, it simply makes more sense to prioritize a mobile tactical SAM battery over unmanned anti-aircraft artillery.

Besides potential misappropriation of strike assets, the mislabeling of TST targets could indicate a shift in emphasis from successfully completing tasks and achieving objectives to simply focusing on targets. Professor Vego also warns of the dangers of this targeting approach or mindset in his criticism of NCW and in particular operations in Afghanistan, stating “...such an approach to warfare especially at the operational and higher level, cannot but lead to the loss of the broader perspective on the situation on the part of the operational commanders and their staffs.”³⁴

By broadening the types and numbers of targets included on the TST viable list, the potential exists to shift focus to attrition rather than focusing on the value that targets contribute to the overall achievement of objectives. TST targets by definition should possess a value that logically places them at the operational or even strategic level. Expanding the list through lack of specificity allows for the inclusion of tactical level targets and places too much emphasis on target attrition, the very warning that Vego expresses in his critique of

⁺ The author flew 22 missions during OIF, with many of them being classified as TST. Targets assigned airborne were labeled as TST targets, but in actuality many did not meet the classification guide lines

NCW. The study entitled *Enhancing Dynamic Command and Control of Air Operations Against Time Critical Targets*, published by RAND, also warns of the danger of overemphasizing [TST] targets stating that “targets must be selected for attack to achieve operational objectives” to prevent “operations from degrading into a target-servicing process.”³⁵

Overall, the assessment of TST execution during OIF is positive. The incorporation of lessons learned from OAF and OEF is quite visible. The final step is the incorporation of lessons into effective doctrine currently being undertaken by the Air, Land, Sea Application Center in the development of the manual, *Multi-Service Procedures for Targeting Time-Sensitive Targets*.

The Operational Commander’s Role

In current doctrine, namely *JP 3-09, Doctrine for Joint Fire Support*, *JP 3-60, Joint Doctrine for Targeting*, and *JP 2-01.1, Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting*, the description of the joint targeting cycle does not provide the responsiveness in joint fires necessary to successfully engage TST targets.³⁶ This section takes a closer look at the role of the Combined Forces Commander (CFC) as currently outlined in the draft manual and compares it to the lessons learned from the three previously discussed operations.

There are two phases to the TST process: the first is planning, during which the CFC will play a vital role; and next the execution phase, consisting of six steps, during which the CFC should have a smaller role. In the planning phase, the CFC provides specific guidance and prioritization of TST targets by integrating component level inputs with the objectives to

established in the Special Instructions (SPINS).

be achieved or tasks to be accomplished.³⁷ An example of this is the TST categories established for OIF consisting of terrorist related targets, leadership, WMD, and ADA. The first three correspond to theater and national strategic level objectives and are therefore easily identified TST viable targets. Besides meeting the criteria of high value, many of these targets also meet the criteria of being sensitive to time. Timely engagement of these targets was critical based on their mobility or rapidly expiring intelligence. Identifying them early in the planning phase aided in timely engagement during operations. The last category of ADA is related to the significant threat that many of these targets could have posed to Coalition forces, but this category also allowed for a great deal of interpretation at the tactical level. Further specificity was required to ensure the correct appropriation of strike assets. The key to preventing this from happening lies in the establishment and prioritization steps taken during the planning phase. The CFC must also limit the number and types of TST targets to prevent the focus from shifting from objective achievement and task accomplishment to a target destruction based plan.

Target identification and prioritization is only one part of the CFC's guidance during the planning phase. *JP 3-60* states the CFC "must articulate objectives, guidance, priorities, and intent for TSTs before the target is even identified."³⁸ Within the CFC's guidance, there should also be approval authority, applicable restrictions, C2 structure and procedures, and acceptable risk. An element of the CFC's guidance is also the establishment of ROE for TST and within that ROE, Positive Identification (PID) and Collateral Damage Methodologies (CDM) should be clearly delineated. Delineating specific ROE and CDM during the planning phase prevents this from being a time consuming factor during execution. Although permissive ROE, as those established in OIF, can certainly be an asset in successful TST

execution, it is more important that the ROE cover as many potential situations or options as possible. In some cases, the ROE may be restrictive in order to protect strategic or operational objectives, but having complete ROE will prevent it from interfering during the TST cycle. As seen from the examples in OAF and OEF, the target approval process that stemmed from the ROE was not only extremely prohibitive but lacked the necessary scope and ultimately presented a large obstacle to the successful execution of TST with many targets escaping engagement.

The last element of the CFC's guidance should clearly identify the C2 structure and in particular, the level at which approval authority lies. In order to be effective in a mission that depends on speed of decision and execution, the C2 structure should delegate approval authority to the lowest possible level. Dissemination of information is also vital to enable timely engagement, and NCW can play a positive role, provided the pitfalls discussed earlier are avoided. Appropriate C2 and delegating approval authority to the lowest possible level are the answers, but there are examples of when the approval authority should remain with the CFC. This may appear counter to the arguments presented by the critics of NCW but there are cases in which political sensitivities or risk of collateral damage may lead to the requirement for CFC approval and the reasons for this requirement may not be clearly evident to the shooter. TST targets of theater or national strategic level importance may fall into this category, and interaction of the CFC at the tactical level is in fact warranted. The CFC should attempt to keep this interaction to a minimum in an effort to alleviate micromanagement and maintain the speed required in this mission.

At the lowest possible level, approval authority may be given directly to the shooter, and although this may allow for the quicker engagement, the decision cycle may in fact be

delayed by the lack of information available to the shooter. In these cases, the shooter would not only be responsible for locating the target, but identification and collateral damage estimates would also have to be done at the shooter's level. With current sensor technology, this may not be achievable. The right answer is most likely the delegation of approval authority to the Component Level Commander, the TST Cell, or a tactical control element. At these intermediate levels, intelligence can be fused, engagement decisions made, and appropriate strike assets assigned. Again, CFC guidance should be clear enough to establish the TST responsibilities at each of these levels to prevent delays in the targeting cycle.

The execution phase is comprised of six steps namely Find, Fix, Track, Target, Engage, and Assess.³⁹ The CFC's participation will vary in each of these steps based on the level at which the particular target resides. In most cases, the CFC should not be involved in this phase, again the intent being to remove him from the tactical level. However, there are specific situations in which he will be involved.

In the Find step, the CFC's input consists of his target list and prioritization directly inputted from his guidance in the planning phase. The CFC should also provide guidance on the use and appropriation of Intelligence, Surveillance, and Reconnaissance (ISR) assets. With ISR assets in high demand for nearly every mission, proper allocation to TST is vital. In the following step, Fix, there is no requirement for CFC input, even in the engagement of a designated CFC approval required target. In the Track phase, the relative priority of ISR asset utilization is required from the CFC, usually delineated in the planning phase, but real time reallocation or the diverting of assets may be required for high-level targets. In the Target step, restrictions are considered, and again these would normally be part of the CFC's guidance but, depending on the target, the CFC could be directly involved. The Engage step

revolves around approval authority, and as mentioned earlier, this should be delegated to the lowest possible level, with certain targets remaining on the CFC's approval required list. Lastly, in the Assess step, confirmed engagement results should be passed and once again, based on the situation, this information may be required to be passed to the CFC prior to the targeting cycle being closed out or reinitiated.

Conclusion

In the last decade during all major U.S. combat operations, there has been an ever-increasing focus on the elimination of specific targets that hold national or theater strategic value. Terrorist activities, WMD sites, and key leaders are perfect examples of targets whose elimination could directly contribute to the achievement of national or theater strategic objectives. With such a high value placed on these targets coupled with the emergence of new technology that has made NCW a reality, the Operational Commander's role in targeting has been increasingly susceptible to expansion and potential interference in tactical operations. Clearly defining the role of the Operational Commander in missions such as TST is critical to ensuring that the principles of operational art are not undermined by the information flow afforded through NCW or by poor leadership. Technological advances in intelligence gathering, information sharing, and precision weapons are merely tools that contribute to successful combat operations. There is no substitute for sound decision making and skillful leadership. In the end, the human factor will prove most decisive in victory. Perhaps General Douglas MacArthur captured it best when asked about the status of the Pacific air operations and in particular, where the bombs were falling. "They are falling in the right place," he said and referencing his air component commander, he continued to say, "Go ask George Kenny where it is."⁴⁰

NOTES

¹ General Wesley K. Clark, Waging Modern War: Bosnia, Kosovo, and the Future of Combat (New York: Public Affairs, 2001), 17.

² Air Land Sea Application Center, Multi-Service Procedures for Targeting of Time-Sensitive Targets (Final Coordination Draft) (Ft. Monroe, VA: November 2003), III-1.

³ Joint Forces Command Joint Warfighting Center, Commander's Handbook for Joint Time-Sensitive Targeting (Suffolk, VA: 22 March 2002), I-1, I-4.

⁴ David S. Alberts, John J. Garstka, and Frederick P. Stein, Network Centric Warfare: Developing and Leveraging Information Superiority (Washington, DC: DoD C4ISR Cooperative Research Program, 1999), 2, 88-92.

⁵ Arthur K. Cebrowski, "Network-Centric Warfare," Military Technology, May 2003, ProQuest Research Library/National Newspaper Abstracts/Research Library, ProQuest, Bonn: ProQuest. (30 December 2003)

⁶ Milan Vego, "Network-Centric Warfare Is Not Decisive," U.S. Naval Institute Proceedings, 129 (January 2003): 52.

⁷ Ibid., 56.

⁸ David Hughes, "New Orthodoxy Under Fire," Aviation Week & Space Technology, 29 Sep 2003, ProQuest Research Library/National Newspaper Abstracts/Research Library, ProQuest, New York: McGraw-Hill. (30 December 2003)

⁹ Ibid.

¹⁰ General John Jumper, quoted in David A. Fuighum, "Network Warfare: Hope and Hype," Aviation Week and Space Technology, 11 November 2002, Lexus-Nexis, McGraw-Hill. (30 December 2003)

¹¹ Rebecca Grant, "Reach-Forward," Air Force Magazine, October 2002, <<http://www.afa.org/magazine/oct2002/1002reach.html>> [03 January 2004].

¹² Clark, 201-202.

¹³ General Michael Short, quoted in Benjamin S. Lambeth, The Transformation of American Air Power (Ithaca, NY: Cornell University Press, 2000), 230.

¹⁴ Clark, 221.

¹⁵ Grant, "Reach-Forward."

¹⁶ Clark, 224.

¹⁷ Grant, "Reach-Forward."

¹⁸ Clark, 224.

¹⁹ Grant, "Reach-Forward."

²⁰ Ibid.

²¹ Rebecca Grant, "An Air War Like No Other," Air Force Magazine, November 2002, <<http://www.afa.org/magazine/nov2002/1102airwar.html>> [30 December 2003].

²² Carl Conetta, "Strange Victory: A Critical Appraisal of Operation Enduring Freedom and the Afghanistan War," The Project on Defense Alternatives, 12 February 2002, <<http://www.comw.org/pda/0202strangeves.html>> [30 January 2004].

²³ Grant, "An Air War Like No Other."

²⁴ Milan Vego, "What Can We Learn from Enduring Freedom?" U.S. Naval Institute Proceedings, July 2002, ProQuest Research Library/National Newspaper Abstracts/Research Library, ProQuest, Annapolis, MD: U.S. Naval Institute Press. (30 December 2003)

²⁵ Thomas E. Ricks, "Un-Central Command Criticized," Washington Post, 03 June 2002, sec. A, p. A01.

²⁶ Vego, "What Can We Learn from Enduring Freedom?"

²⁷ Seymour M. Hersh, quoted in Rebecca Grant, "An Air War Like No Other." Grant alludes to the fact that the facts presented by Hersh may not be precise but the story does reveal that there were obstacles to the smooth execution of TST. This story has not been confirmed by official accounts and its inclusion is merely to demonstrate that reputable sources highlighted the need for refinement of TST doctrine.

²⁸ Grant, "An Air War Like No Other."

²⁹ U.S. Air Force, Operation Iraqi Freedom – By the Numbers (PSAB: 30 April 2003), 9.

³⁰ Rebecca Grant, "The Redefinition of Strategic Airpower," Air Force Magazine, October 2003, <<http://www.afa.org/magazine/oct2003/1003strategic.html>> [30 December 2003].

³¹ U.S. Air Force.

³² Milan Vego, “Learning from Victory,” U.S. Naval Institute Proceedings, August 2003, ProQuest Research Library/National Newspaper Abstracts/Research Library, ProQuest, Annapolis, MD: U.S. Naval Institute Press. (30 December 2003)

³³ Ibid.

³⁴ Vego, “What Can We Learn from Enduring Freedom?”

³⁵ Myron Hura, and others, Enhancing Dynamic Command and Control of Air Operations Against Time Critical Targets (Santa Monica, CA: Rand, 2002), 3.

³⁶ Air Land Sea Application Center, Multi-Service Procedures for Targeting of Time-Sensitive Targets (Final Coordination Draft) (Ft. Monroe, VA: November 2003), i.

³⁷ Ibid., I-1.

³⁸ Joint Chiefs of Staff, Joint Doctrine for Targeting, Joint Pub 3-60. (Washington, DC: 17 January 2002), 53.

³⁹ Air Land Sea Application Center, Multi-Service Procedures for Targeting of Time-Sensitive Targets (Final Coordination Draft), I-3.

⁴⁰ General Douglas MacArthur, quoted in Rebecca Grant, “Reach-Forward.”

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